

(AMENDED)

13. ~~An~~A system for sharing information on a data communication network based on concurrent connection among a plurality of users communicating with one another on a first communication network, the data communication network distinct from the first communication network, comprising:

- a) a plurality of terminal devices for retrieving multimedia information from a plurality of information sources on said data communication network,
- b) account management means for determining a user account for each of the at least two members of said plurality of users who are communicating with one another on the first communication network, the user account selected from a group consisting of permanent and temporary user accounts,
- c) first means for associating a session identifier with the at least two user accounts, each user account identified by a user account identifier.
- d) terminal software means for establishing a connection on a data communication network between at least one terminal device and a session manager, said connection providing an account identifier, thereby establishing session access for the at least one terminal device,
- e) second means for selecting information to be transmitted on the data communication network, and
- f) session manager means for routing the selected information over the data sharing connections to the terminal devices associated with the same session identifier, whereby information can be shared among said plurality users of a data communication network, while the users communicate on the first communication network.

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14. ~~the~~The method of claim 13 wherein at least one user of said plurality of users is an automated interactive response system, responsive to an input signal from at least one human user communicating over the first communication network and the interactive response device sending responses to the at least one human user over the data communication network.

Remarks regarding rejected claims:

As per claim 1:

Chack provide claims concerning data sharing among a plurality of users over a plurality of communication media, but there are limitations that arise from their method of associating a URL with a phone call as illustrated in figures 8, 9A, and 9B. Chack et al utilize a special connection between a telephone and a computer, or a computer based telephone, or an ISDN line for the telephone, which our invention does not require. Their method is well designed for call center applications but as their claims demonstrate (*Chack, col. 14, lines 10-11 and 43-44 and col. 15, lines 9-11*), their methods are limited to data sharing arrangements that are initiated by a phone call and in which data is controlled by the participant that receives the phone call. In contrast, our invention has eliminated the need to relay on any information requesting a URL in the initial call signaling by the first communication network or any connection between a telephone and the terminal device. The differences we intent to address are in the specification of their invention and the specification of ours that involve our differing methods for establishing a data sharing connection that is coordinated with a POTS call.

Difference 1: Use of Session record and session manager instead of a URL.

Our invention does not require that the user already be "logged into the network", see (*See Chack et al. figure 9B-220*), as the process illustrated in figures 9A and 9B. Our invention utilizes a session manager to allow graceful migration toward visual display capabilities as needed, without anticipating it. When a call is established, we use a session manger to establish a data sharing

session, despite the fact that the people on either end may never choose to use the data sharing capabilities. Furthermore, at the time of the telephone call, terminal devices do not need to be logged in, connected to the service, or even powered up at the time of the call. If they choose to utilize the data sharing capabilities at any time during the call, they can act in a manner that connects one or more of their devices to the session manager, which would facilitate setup and signaling of the data-sharing feature.

Because we utilize a session record and session manager instead of a resource locator such as a URL (*see Chack, col. 2, lines 23-45*), multiple calls can be associated with a single multi-media experience at any point in the conversation, and conferences can be split apart, each with their own associated multi-media experience and then joined together at a latter time. In addition, the web-based sharing of visual information can precede as well as follow the voice connection. In Chack et al., the voice connection always precedes the shared visuals. In Chack et al., the decision to create a multi-media coupling is at the beginning of the call and there is no mechanism for creating such a coupling after the call is routed to an agent. The following are segments of the reviewer comments on claim 1 followed by inventor responses.

As per claim 1:

- Thus in claim 1, step a) associating a session record is not the same as (*Chack i.e., the URL col. 6 lines 33-57*).
- Also in claim 1, step a) ... the at least two user accounts, each user account ... is not to be compared with (*Chack i.e., name, account number, col. 8, lines 33-57*).
 - RESPONSE: These are two different things entirely. Our account refers to a user account for the data sharing service, and theirs refers to a vendor's sales/service account for a customer. Our account is agnostic with respect to any business conducted by any vendor or customer. Our description of a user account illustrates the account as purely a means of discovering or initiating data sharing sessions from a terminal device, or by initiating a data sharing session and associating the unique identifier from the first communication service's call setup signaling as a member of the session. It would also support session related signaling to facilitate data sharing features.
- Also in claim 1, step a) ... the user account selected from the group consisting of permanent and temporary user accounts (*Chack i.e., a new "URL request" message may be created to request a URL from a transaction processing system. Alternatively, a temporary signaling connection may be established between the transaction initiator and the transaction processing system to allow the exchange of various messages, col. 5, line 46-65*) (*col. 6, lines 11-31*) (*col. 5, line 46 to col. 6, line 64; col. 7, lines 9-58; col. 8, line 5 to col.9, line 16*), ...
 - RESPONSE: The set of lines (*col. 5, lines 46-65*) refer to figure 2, which illustrates the process for the device configuration in figure 1. This process relies on a computer that is connected to a telephone and can be coordinated with the call setup that is relayed to the transaction processing system. Here they are describing the case where the computer is coordinated with the connected telephone in setting up the parallel data connection. Our invention does not require this type of interconnection between the telephone and a computer as described in this section. Our use of customer accounts for data sharing service referred to in step a) of claim 1 is not the same as this temporary signaling connection. The benefit of our improvement is that this allows the creation of a temporary account if one does not exist, associating it with the unique identifier, e.g., telephone number, so that a terminal device can identify the temporary account using the same unique identifier.

- RESPONSE: The set of lines (*col. 6, lines 11-31*) refer to a different form of account as mentioned above. The database that can store account information is probably the same. However, our creation of temporary accounts for purposes of establishing data sharing connections is not the same type of account as a vendors customer account, and is not the same as generating a different URL for a particular customer. As mentioned above, a session record is not the same as a URL.
- RESPONSE: The set of lines (*col. 7, lines 9-58*) refer to automating the selection of a URL due to preexisting user account, which is not the same as establishing a session record with a session manager.
- RESPONSE: The set of lines (*col. 8, line 5 to col.9, line 16*) there are many points made in this section about use of the system by a call center agent to specify URLs for the caller, use of selected web pages when a caller is placed on hold, selecting pages likely to be of interest to a caller, gathering information from the caller through web-based forms, alternative contact methods for caller to busy agents through a web page (e.g. email or fax), use of selected web pages when all agents are busy and all queues are full, and finally use of another device to contact the transaction processing system to generate a request to receive a URL. I am not sure exactly how any of these are relevant to step a) in claim 1.
- Also in claim 1, ... b) identifying said session record for at least one data sharing (*Chack i.e. Web page identified or generated, col. 6, lines 11-31*) ...
 - RESPONSE: Here again a URL identified or generated is not the same as establishing a session record in a session manager and associating it with a user account and unique identifier.
- Also in claim 1, step b) ... connection between a software process (*Chack i.e. a software-based telephone implementation by computer 22, col. 4 line 65 to col. 5, line 15*) ...
 - RESPONSE: This portion of the Chack patent works only for an Internet phone where the computer implements the telephone as well as the browser. Our invention removes this requirement and works with POTS telephones that are in no way coupled with the computer used for display.
- Also in claim 1, step b) ... acting on behalf of a terminal device (i.e. computer 22, col. 4, line 65 to col. 5, line 15) ...
 - RESPONSE: Sure the same terminal type is supported by both inventions, but we do not require coupling the telephone device with the computer the way that some of the Chack embodiments do.
- Also in claim 1, step b) ... on said data communication service and session manager (*Chack i.e. PSTN 12, transaction processing systems, Web server 16, col. 5 lines 35-45*), ...
 - RESPONSE: Their transaction processing system requires the user to already be logged in via terminal device during call setup. Furthermore, our session manager and their transaction processing system seem to serve different functions. Chack does not provide for a separate session management function that can be utilized when the user is not logged into the data communication service, though they do allow a connection from a computer to the transaction processing system to request URLs without a telephone call. The transaction processing system they describe seems to identify calls that request URLs, generate URLs based on unique identifiers or customer accounts, select URLs based on agent work flow, or allow computer requests for URLs. In our invention, the

generation of URLs is replaced with the generation of session records within a session manager. Any methods for generating content are delegated to endpoints or terminal devices connected to the session through the data communication network. Thus, our method has the benefit of allowing any user to determine what content is shared among all participants, independent of the call center.

- Also in claim 1, step b) ... the association based upon an account identifier (*Chack i.e. the call initiator's telephone number col. 6, lines 11-31*) ...
 - RESPONSE: sure, both systems claim to make use of the telephone number as the identifier.
- Also in claim 1, step b) ... provided through said software process and corresponding to at least one user of the terminal (*Chack i.e. between two devices or individuals, col. 2, lines 14-27*), ...
 - RESPONSE: Sure the same terminal type is supported by both inventions, but as described above we do not require coupling the telephone device with the computer the way that some of the Chack embodiments do.
- Also in claim 1, step b) ... thereby establishing the data sharing connection for the at least one software process (*col. 5, line 46 to col. 6, line 64*), ...
 - RESPONSE: Sure, the generated URLs are a form of data sharing, as are email in web pages, etc. However, our invention is not restricted to resource locators such as web pages, or emails in web pages. For example, our invention allows real-time sharing of multi-media data streams, e.g., text and video created by participants during the conference.
- Also in claim 1, ... c) associating the session record with information to be conveyed across said data communication service to the at least one terminal device (*i.e. retrieve one or more web pages associated with the URL provided by the transaction processing system, col. 6, lines 47-64*) (*col. 5, line 46 to col. 6, line 64; col. 7 lines 9-58*), ...
 - RESPONSE: As mentioned above, a session record and a session manager is not the same as generating one or more URLs. The use of a session manager removes the restriction that the user must be logged in through the data communication network when the call is initiated.
- Also in claim 1, ... d) sending the information (*i.e. email message on the web page, col. 8, lines 45-57; user enters information on the web page, col. 8, lines 33-44*) over the at least one data sharing connection, each connection associated with said session record (*i.e. web browsers may be used to retrieve web pages from a web server, col. 6, lines 47-64*) (*col. 5, line 46 to col. 6, line 64; col. 7, lines 9-58*), ...
 - RESPONSE: These segments of the Chack invention specification reveal the nature of the invention as a serving the needs of a traditional call center. It also reveals the asymmetric nature of the embodiment, where there are capabilities of generating URL's by the call center agent or the transaction processing system, but not by the caller. The data sharing capabilities of our invention allow for bi-directional visual presentation. Chack describes the use of an on hold feature of their transaction processing system, where the user can provide information to the system through the web page using their computer keyboard. This falls well short of the bi-directional data sharing capability that allows visual data to be transmitted in either direction and internet co-browsing, not just text into a web-base form. Though we understand that once a multitude of terminal

devices have accessed the same URL, any data sharing service, fax, or email service can be launched from that page. Yet these lack the degree of coordination our session manager provides. The session manager allows any member of a session to communicate with any or all other members of the session directly through the visual communication methods in real time as they are talking on the telephone.

- Also in claim 1, ...whereby a plurality of users will receive the information (*i.e. visual information, col. 6, lines 47-64*) sent by at least one user over the data communications service while they remain connected (*i.e. the call initiator can communicate verbally, col. 6, lines 46-64*) to each other on the first communication service (*i.e. At this point, an audible connection and a data connection have been established between the call initiator and the transaction processing system, col. 6, lines 46-64*).
 - RESPONSE: Yes, both inventions allow simultaneous voice and visual communications. However, as noted above our invention allows a more symmetric and synchronous form of sharing visual information.

Another advantage of our invention replacing the generation of URLs with a session record and a session manager is allowing alternative contact methods such as voice mail with visual messages. Because we utilize a session record and session manager instead of a URL, our invention allows a telephone call to an answering machine or voice mail service to be sufficient for initiating a data sharing session and leaving a visual message or URL in a messaging service. The recipient of these visual messages can be retrieve them by dialing into the voice mail service, initiating a data sharing session, and using the terminal device to access the message or URL. This is unique to our invention because method C does requires that the user is already logged into the network for a data channel to be utilized.

As per claim 2:

RESPONSE: Sharing policies that are asymmetric can be accomplished with either invention, however the remarks in claim 1, explaining how our use of session records and session manager to replace generation of URLs in the Chack invention constitutes new art, extends to this dependent claim.

As per claim 3:

RESPONSE: Generating web pages tailored to individual customers based on customer account data is not "transforming", it is "generating". We refer to transforming, which implies that the same visual information that is displayed on one terminal device can be transcoded i.e., decoded and recoded, to suite the requirements of another display device.

As per claim 4:

RESPONSE: Because we utilize a session record and session manager instead of a URL, our invention allows the end of the telephone to cause the end of the data sharing capability. There is no mention of this in the specification of Chack et al. In the lines referred to (*Chack i.e. col. 11, line 65 to col. 12, line 24; col. 7, lines 9-58*). The first two sets of lines refer to logging out from the second network not the first network as the examiner claims here. The second set of lines (*col. 7, lines 9-58*) discusses removing URLs generated for the user after a fixed period or after the call has terminated. As stated before removing a URL from a web server is not equivalent to terminating a data sharing session. In fact, one person hanging up in our system may allow others members of a session to continue talking and sharing information.

As per claim 5:

RESPONSE: This is true in both inventions, except in the embodiments of the Chack invention where the telephone is connected to the computer or the telephone is implemented as software on the computer. However, this claim is a dependent claim of claim 1 in which the steps of generating URLs are replaced by generating a session record in a session manager, overcoming the limitations mentioned previously.

As per claim 6:

RESPONSE: The example given does not address this claim. In (*Chack col. 6, lines 46-64*), there is mention of a computer connecting to a web server, configuration that can automatically launch a browser in response to the receipt of a URL from the caller's telephone, and how the browser is used to retrieve web pages while talking to an agent on the telephone. Our dependent claim addresses only the voice communication aspects. The method of claim 1 **where in the first communication service interconnects a plurality of networks designed for voice communication**. We intend to convey that the telephones involved in the communications may exist as endpoints of different telephone networks that include: PSTN, wireless telephone, voice over Internet telephone.

As per claim 7:

RESPONSE: Chack only teaches that the first communication service is accessed through a plurality of networks designed for data communication in the embodiment where the computer implements an Internet telephone (*Chack figure 4*). Furthermore, claim 7 does not address this point. It is a dependent claim that addresses only the access to the data communication service through a plurality of networks designed for data communications, not the first communication service as noted by the examiner. We intend to convey that the terminal devices can be connected to a plurality of data communication networks: Internet, cable television network, digital satellite, etc.

As per claim 8:

RESPONSE: (*Chack i.e. col. 5 lines 46-65*) makes no mention of television broadcast networks or wireless packet networks. They do mention Internet connections that may consist of dial-up and broadband connections. This dependent claim depends on the coordination of device on this plurality networks through the use of a session manager, thus eliminating the need to couple the visual device with the telephone device, and removing the restriction of having the data communication device logged into the service while the telephone call is initiated. Thus, a caller may start with just a telephone call, and at any point during the call, turn on a television set, tune their digital set-top box to a dedicated channel that launches an application that then connects to a session manager (logs in) that provides signaling for a data communication service.

As per claim 9:

RESPONSE: (*Crandall, et al. U. S. PAT No. 6,425,131*) predates Moynihan patent and covers the distribution of multimedia content from a centralized server over a broadcast television network. This dependent claim does not simply combine the Moynihan patent or the Crandall patent with the Chack patent, since the method of coordinating the two networks differs as noted in remarks for claim 1 above. Our invention replaces the method of URL generation with a novel application of session management that removes a limitation of the Chack invention no matter what form of broadcast network is utilized (*see remarks for claim 1*). Moynihan does not allow the narrowcast of information as a result of communications initiated on a telephone.

As per claim 10:

RESPONSE: I can't find any mention in the Moynihan patent of an account identifier that is automatically provided through the data communication service when the television is tuned to a specific channel.

As per claim 11:

RESPONSE: This claim is dependent on claim 1, and claim 1 has been described as different than the Chack invention due to the use of the session manager.

As per claim 12:

RESPONSE: The Chack patent (*col. 5, line 46 to col. 6, line 64; col. 7, lines 9-58; col. 12 line 54 to col. 13 line 10*) makes no mention of the scope of an account identifier beyond a network address alternative. Our account identifier is different than the Chack description of a customer account, and it is different than a device address. It is used as a means of establishing a session record in a session manager that is associated with a user account identifier. While Chack includes a telephone number as an identifier that can be mapped to an account, we expand the scope of this in this claim. Also this identifier can be utilized after the call has been setup, or without a call being setup.

As per claim 13:

- In claim 13, ... c) first means (*i.e. a transaction processing action processing system, col. 5, line 66 to col. 6, line 11*) for associating a session identifier (*i.e. URL, col. 5, line 66 to col. 6, line 11*) ...
 - RESPONSE: associating a session record/identifier is not the same as generating a URL, as described in detail in remarks for claim 1.
- Also in claim 13, ... d) terminal software means (*i.e. a software-based telephone implemented by computer 22, col. 4, line 65 to col. 5, line 15*) ...
 - RESPONSE: as stated earlier, we eliminate the need to have any telephone other than a POTS telephone, as does the one embodiment of Chack. This embodiment is not to be compared to one in which the terminal device is completely separated from the telephone and the telephone network.
- Also in claim 13, ... f) session manager means (*i.e. PSTN 12, transaction processing systems, Web server 16, col. 5, lines 35-45*) for routing the selected information over the data sharing connections to the terminal devices associated with the same session identifier (*i.e. URL, col. 7, lines 9-39*) (*col. 5, line 46 to col. 6, line 64; col. 8, line 5 to col. 9, line 16*), ...
 - RESPONSE: Chack's invention does not use a session manager separate from the call center transaction processing system, and thus, theirs do not allow terminal devices to log in after the call is established. A session record and session manager provides features that URLs alone do not.

As per claim 14:

RESPONSE: In Chack (*col. 6, lines 47-64; col. 10, line 59 to col. 11, line 61*) they describe the use of a CTI server, and a transaction processing system. They do not specifically mention an interactive voice response system that allows touch-tones or other inputs through the first communication service that results in the sending of response over the second communications network. Chack mentions in

As per claim 15:

RESPONSE: As stated above combining means for specifying bandwidth or other device parameters with our invention is different than combining it with Chack et al. since our invention differs from Chack's in the use of a session manager to eliminate certain restrictions.

As per claim 16:

RESPONSE: Chack does not provide an embodiment that can de-activate a session identifier after the users of the plurality of users (*i.e. log out*) associated with the session identifier have terminated their respective connections on the first communication service (*i.e. col. 11, line 65 to col. 12, line 24*). They discuss removing web pages after some period of time or immediately after a call hangs up. However, as stated earlier, a URL is not the same as a session record, or session membership in a session manager. Our invention removes a session record for the user when they hang up the telephone, not a URL, thus a session with other participants can continue without them.

As per claim 17:

RESPONSE: In Chack (*col. 6, lines 11-31*) they describe the use of prior purchases to select a category of web pages of interest to the customer. We describe a means of storing a history of previously viewed or shared content for the user to select them selves. This history would be accessible from the terminal device as a history of the ongoing session, or as a history of a previous session. We are talking about a history of the visual content itself, not a history purchases.

As per claim 18:

RESPONSE: In Chack (*i.e. col. 11, line 65 to col. 12, line 24*) they describe logging into the data network being detected by the transaction processing system. This is not the same as re-activating a session identifier when re-establishing communication through the first communication service (a telephone call).

As per claim 19:

RESPONSE: This is a dependent claim of claim 13, which is different from Chack's invention due to reasons mentioned above. The Chack patent describes an embodiment that allows a call center agent to select web pages or URLs for a caller, but does not explicitly mention which communication network is used for this. (*col. 8, line 5-16*), This claim may need to be revised to distinguish it from the Chack patent by means of a session record and a session manager, as well as symmetric form of selecting and transmitting data to be shared.

As per claim 20;

RESPONSE: We withdraw this claim.